

Applicant: Wayne Boga et al.
Application No.: 10/774,084
Response to Office action of Feb. 2, 2007
Response filed February 21, 2007

Claim Listing

1–14. (canceled)

15. (new) A suction roll seal strip, comprised of a material selected to allow a seal with a cross-section of 1.9 cm by 4.8 cm to be bent into a reel with a radius of less than 150 cm.

16. (new) A suction roll seal strip, comprised of a mixture of more than 50% nitrile rubber and graphite, and said mixture containing wax.

17. (new) The seal strip of claim 16, wherein an amount of wax in the mixture is set so that the flexibility of the seal strip when it has a cross-section of 1.9 cm by 4.8 cm permits the seal strip to be bent onto a reel, having a radius of less than 130 cm.

18. (new) The suction roll seal strip of claim 16 wherein the mixture includes 1–15% wax by volume.

19. (new) The suction roll seal strip of claim 18 wherein the mixture includes 2–4% wax by volume.

20. (new) The suction roll seal strip of claim 16 wherein the mixture includes an amount of nitrile rubber of 30–60% by volume, and an amount of graphite 30–60% by volume.

21. (new) The suction roll seal strip of claim 16 wherein the mixture includes 1–15% sulphur or peroxide by mass.

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22. (new) The suction roll seal strip of claim 16 wherein the graphite in the mixture is natural graphite.

23. (new) The suction roll seal strip of claim 16 wherein the graphite in the mixture is synthetic graphite.

24. (new) The suction roll seal strip of claim 16 wherein the wax in the mixture has a melting point more than 100 ° C.

25. (new) The suction roll seal strip of claim 16 wherein the wax in the mixture has a melting point within the range 110–150 ° C.

26. (new) The suction roll seal strip of claim 16 wherein the amount of wax is selected such that a seal strip, with a cross-section of 1.9 by 4.8 cm can be rolled onto a reel with a radius of less than 1.5 m.

27. (new) The suction roll seal strip of claim 16 wherein the wax in the mixture is an ethylene bis-stearamide wax.

28. (new) The suction roll seal strip of claim 27 wherein the wax in the mixture is a N, N'-ethylene bis-stearamide wax.

29. (new) The suction roll seal strip of claim 27 wherein the wax in the mixture is a wax selected from the group consisting of: hydroxy stearamide wax, hydroxy bis-stearamide wax, carnauba wax, esparto wax, polyolefin wax, and amide wax

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30. (new) A suction roll seal strip for placement in a holder of a stationarily supported suction box in a paper machine, the suction box connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner surface and wherein the suction box has a gap opening against the cylindrical roll, the holder positioning the sealing strip to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates, the sealing strip comprising a section of material, wherein the material of the sealing strip is selected to allow a seal with a cross-section of 1.9 cm by 4.8 cm to be bent into a reel with a radius of less than 150 cm.

31. (new) The suction roll seal strip of claim 30 wherein the seal strip is comprised of a mixture of more than 50% nitrile rubber and graphite, and contains wax.

32. (new) The suction roll seal strip of claim 31 wherein the mixture includes 1–15% wax by volume.

33. (new) The suction roll seal strip of claim 32 wherein the wax in the mixture has a melting point within the range of 110–150 ° C.

34. (new) The suction roll seal strip of claim 33 wherein the wax in the mixture is a wax selected from the group consisting of: ethylene bis-stearamide wax, hydroxy stearamide wax, hydroxy bis-stearamide wax, carnauba wax, esparto wax, polyolefin wax, and amide wax